

AMENDMENTS TO THE CLAIMS

The listing below of the claims presents in amended form claims 1 through 12 that were originally filed in the corresponding PCT application. The following claims replace all prior versions and listings of claims in the present application:

Listing of Claims:

Claim 1 (currently amended): A method ~~pertaining to the~~ for combustion of a fuel with an oxidant in a heating furnace, wherein the fuel and the oxidant are delivered to a burner head, ~~characterized in that in a first method step~~ said method comprising: a first step of emitting fuel and oxidant ~~are caused to be emitted~~ from the burner head (1; 10) in the close proximity of to each other, so that combustion ~~will essentially be close~~ occurs adjacent to ~~and at a small distance out from~~ the burner head and for a time until ~~there is reached in the furnace space~~ a temperature that exceeds the a spontaneous combustion temperature of the fuel is reached within the furnace; ~~in that in a second method step~~ and a second method step of thereafter emitting the fuel and the oxidant ~~are caused to be emitted instead~~ from the burner head (1; 10) at a mutual distance apart, so that combustion ~~will essentially take place~~ occurs at a distance point spaced from and outwardly of the burner head ~~corresponding to~~ at a distance of at least the a diameter of the burner head and ~~outwards from the burner.~~

Claim 2 (currently amended): A method according to claim 1, ~~characterized in that~~ wherein in the first ~~method~~ step the fuel is ~~caused to be~~ emitted from a fuel nozzle (2;11) in the burner head (1;10), and the oxidant is ~~caused to be~~ emitted concentrically (3) around said fuel nozzle.

Claim 3 (currently amended): A method according to claim 1 ~~or 2~~, ~~characterized in that in said~~ , wherein in the second ~~method~~ step the fuel is ~~caused to be~~ emitted from a fuel nozzle (2;11) in the burner head, and the oxidant is ~~caused to be~~ emitted through oxidant outlet openings (4;5;12-14) located on one side of and at a distance spaced from said fuel nozzle.

Claim 4 (currently amended): A method according to claim 3, ~~characterized by~~ including the step of placing said the oxidant outlet openings (4;5;12-14) at a distance from the fuel nozzle (2;11) that exceeds half ~~the~~ a diameter of the burner head (1;10).

Claim 5 (currently amended): A method according to claim 1, ~~2,3 or 4~~, ~~characterized by~~ including the step of using a gaseous oxidant ~~and causing the oxidant to have~~ that has an oxygen content of at least about 80 % ~~or higher~~.

Claim 6 (currently amended): A method according to claim 5, ~~characterized by~~ including the step of delivering the oxidant at an overpressure of at least 2 bar.

Claim 7 (currently amended): A method according to ~~any one of the preceding claims, characterized by~~ claim 1, including the step of using oil as the fuel.

Claim 8 (currently amended): A method according to ~~any one of the preceding claims, characterized by~~ claim 1, including the step of using at least one of natural gas or and propane as the fuel.

Claim 9 (currently amended): A burner for combusting fuel with an oxidant in a heating furnace, where the fuel and the oxidant are delivered to a burner head, ~~characterized in that the~~ said burner comprising: a burner head (1;10) ~~includes including a fuel supply nozzle (2;11); in that the burner head (1;10) also includes and a~~ first oxidant outlet opening (3) ~~in the close proximity of~~ adjacent to the ~~fuel~~ nozzle so that combustion will ~~generally take~~ takes place ~~close to and at a small distance out from~~ adjacent to the burner head; ~~in that wherein~~ the burner head ~~also includes further additional~~ oxidant outlet openings (4,5;12-14) that are located at a distance from the fuel nozzle (2;11) , so that combustion will ~~generally take~~ takes place at a distance from the burner head corresponding to at least ~~the~~ a diameter of the burner head and outward ~~from~~ of the burner head; and ~~in that wherein~~ the burner is ~~adapted to deliver head delivers~~ the oxidant at an overpressure of at least 2 bar.

Claim 10 (currently amended): A burner according to claim 9, ~~characterized in that said further~~ wherein the additional oxidant outlet openings (4,5;12-14) are located on one side of and ~~at a distance~~ spaced from said fuel nozzle (2;11).

Claim 11 (currently amended): A burner according to claim 9 ~~or 10~~, ~~characterized in that said further~~, wherein the additional oxidant outlet openings (4, 5; ~~12-14~~) are placed at a distance from the fuel nozzle (~~2;11~~) that exceeds half the a diameter of the burner head (~~1;10~~).

Claim 12 (currently amended): A burner according to claim 9, ~~10 or 11~~, ~~characterized in that~~ wherein the additional oxidant outlet openings (4, 5) are formed by at least one of Laval nozzles ~~or~~ and venturi nozzles.